

S/N: 10/768,723

Atty Dkt No. GP-303333 / GM0420PUS

Remarks

Claims 1- 20 are pending in this application. Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hoerster (US 6,276,228). Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over Hoerster in view of Roper (US 5,372,026). Claims 10 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hoerster in view of Tonoe et al. (US 4,805,522). Claims 3-7, 11, 12, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 16-18 and 20 are allowed.

Rejections under §102(b): Anticipation of Claims 1, 2, 8 and 9 by Hoerster

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See MPEP §2131.

Claim 1 requires:

a unitary *sheet* formed to at least partially define a vehicle cowl and a vehicle bulkhead, and wherein the unitary *sheet* is further configured to at least partially define a front compartment of the vehicle.  
(emphasis added)

With respect to claim 1, the Examiner states that Hoerster "discloses a front structure for a vehicle comprising a unitary sheet..." (emphasis added). Applicants respectfully disagree. In the Office Action of April 19, 2005, while discussing Seksaria (6,755,461), the Examiner stated, "the term 'panel' implies nothing about the process of forming an object, only its shape", and further explained, the "overall shape of the Seksaria structure is substantially flat. It is suggested that the term 'sheet' is more descriptive of what applicant is trying to claim...". Applicants then modified claim 1 by substituting "sheet" for "panel".

S/N: 10/768,723

Atty Dkt No. GP-303333 / GM0420PUS

Referring to the bulkhead/cowl panel assembly 1 of Hoerster (Fig. 1 and Fig. 2), Applicants contend that, like Seksaria, Hoerster does not disclose a “unitary sheet”. Notably, the bulkhead/cowl is described as a “panel”, and not a “sheet”. The term “panel” is further qualified with the term “assembly”, defined in Webster’s II New Riverside University Dictionary as “the combining of manufactured parts to make a completed product”. Applicants therefore contend that the bulkhead/cowl panel assembly disclosed by Hoerster properly describes a substantially flat combination of manufactured parts, and not a unitary sheet as required by claim 1.

Accordingly, because Hoerster does not teach a “unitary sheet” as required by claim 1, Applicants respectfully submit that the rejection of claim 1 is improper.

With respect to claim 2, and in particular the claim language “wherein the unitary panel is formed using a method selected from the group consisting of quick plastic forming, superplastic forming, and sheet hydroforming”, the Examiner states, “the method of constructing the panel is not given patentable weight in this product claim.” Applicants respectfully disagree. With respect to the weight to be afforded to process steps in an apparatus claim, MPEP §2113 provides:

The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, *or where the manufacturing steps would be expected to impart distinctive structural characteristics to the final product.* (emphasis added). See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) (sic 1969) (holding “interbonded by interfusion” to limit structure of the claimed composition and noting that terms such as “welded,” “intermixed,” “ground in place,” “press fitted,” and “etched” are capable of construction as structural limitations.)

Applicants contend that the manufacturing steps cited in claim 2 would be expected to impart distinctive structural characteristics to the final product, unlike

S/N: 10/768,723

Atty Dkt No. GP-303333 / GM0420PUS

stamped or welded bulkhead/cowl panel assemblies similar in appearance to the assembly disclosed in Hoerster. The essence of each of the formation processes cited in claim 2 is the capability of forming vehicle body panels and other structures of more complex shape than available via the prior art. As recited in paragraph [0030] of the specification:

[Q]uick plastic forming, superplastic forming, or sheet hydroforming is preferably employed to form the first panel 10 as a more complex shape than is generally obtainable with stamping may be achieved.

As further recited in paragraph [0029]:

Notably, the first panel 10 is formed with a complex, contoured shape, enabling one, unitary panel to serve as the bulkhead 14, the cowl 12, the cross beam 16, the dashboard structure 26, and the instrument panel structure 28. The complex shape is achieved by a combination of specialized forming process (quick plastic forming, superplastic forming or sheet hydroforming) and bending, where necessary.

Thus the processes recited in claim 2 are critical to achieving the complex shape required for a unitary panel "to at least partially define a cowl and a vehicle bulkhead, . . . a front compartment of a vehicle, [and] . . . structure at least partially forming a vehicle dashboard and configured for attachment with respect to an instrument panel", complexities not achieved by Hoerster. Because the manufacturing steps cited in claim 2 would be expected to impart distinctive structural characteristics to the final product, consistent with MPEP §2113, Applicants contend that claim 2 is properly allowable.

S/N: 10768,723

Atty Dkt No. GP-303333 / GM0420PUS

With respect to claim 8 and 9, both claims depend from claim 1, and are properly allowable for at least the same reasons that claim 1 is allowable. Additionally, Applicants respectfully disagree with the Examiner's finding that Hoerster's cowl 3 "comprises a structural cross beam (the confluence of 2 and 3 creates a cross beam)." (Office Action, page 3). First, claim 9 requires that "the cowl comprises a structural cross beam." Hoerster's cowl 3 is a flat surface and cannot form a beam. Even in combination with the vertical region 2, one skilled in the art would not understand the confluence of regions 2 and 3 to be a cross beam. Those skilled in the art understand a beam to have a shape imparting a strengthening function. Figure 2 illustrates the ease of deforming the angled interface of regions 2 and 3 – emphasizing the lack of a beam for reinforcement. Thus, claim 9 is allowable for at least this reason as well.

Rejections under §103(a): Claim 19 over Hoerster in view of Roper

In rejecting claim 19 under 35 U.S.C. 103(a) as being unpatentable over Hoerster in view of Roper, the Examiner states:

Roper discloses a method of manufacturing front structure for a vehicle, the method comprising forming a unitary panel, wherein the unitary panel at least partially defines a vehicle cowl and a vehicle bulkhead.

Applicants assume that the Examiner intended to refer to Hoerster, not Roper, in the above quotation, as Roper does not disclose a panel defining a cowl and a vehicle bulkhead. The Examiner states that "Hoerster does not disclose forming the unitary panel . . . using a method selected from the group consisting of quick plastic forming, superplastic forming and sheet hydroforming", but that "Roper teaches the use of sheet hydroforming to form metal parts". The Examiner further states: "[i]t would have been obvious . . . to modify a method, such as that disclosed by Hoerster, to include forming the unitary panel by sheet hydroforming, as taught by Roper, in order to reduce the tooling costs associated with forming such a part in a high quality manner (see Roper, column 2, lines 8-16)".

S/N: 10/768,723

Atty Dkt No. GP-303333 / GM0420PUS

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143.

Applicants contend that there is no suggestion or motivation to combine Hoerster with Roper in the manner advanced by the Examiner. Hoerster discloses a pedal mounting apparatus which uses the substantially flat surfaces of a standard, existing stamped or cast bulkhead/cowl panel assembly merely for ease of mounting of the apparatus. There is no recognition of an inherent or explicit problem with the cost of forming a bulkhead/cowl design of the type disclosed by Hoerster that would lead one skilled in the art to adopt the advanced hydroforming process disclosed by Roper.

Therefore, Applicants contend that the rejection of claim 19 is improper and that claim 19 is allowable.

Rejections under §103(a): Claims 10 and 13 over Hoerster in view of Tonoe et al.

In rejecting claims 10 and 13, the Examiner states:

Hoerster discloses all the limitation of the claims, as applied above, except for the cowl forming an intake plenum, wherein the cross beam is formed between the plenum and the vehicle bulkhead.  
(Office Action, page 4)

A *prima facie* case of obviousness requires that the prior art references teach or suggest all claim limitations of the examined claim. (MPEP 2143.03) As discussed above with respect to claim 1, Hoerster does not disclose the "unitary sheet" required by claim 1. With respect to claims 10 and 13, both claims ultimately depend

S/N: 10/768,723

Atty Dkt No. GP-303333 / GM0420PUS

from claim 1, and are allowable for at least the same reasons that claim 1 is allowable. Additionally, claim 10 depends from claim 9, and is allowable for at least the reasons discussed above with respect to claim 9.

Allowable Subject Matter: Objections to Claims 3-7, 11, 12, and 15

Claims 3-7, 11, 12, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 3-7 ultimately depend from claim 2, and are allowable for at least the same reasons that claim 2 is allowable. Claims 11 and 12 ultimately depend from claim 1, and are allowable for at least the same reasons that claim 1 is allowable. Applicants believe the objection to claim 15 was in error, as claim 15 depends from claim 16, which the Examiner has indicated is allowed.

Allowable Subject Matter: Claims 16-18 and 20

Applicants appreciate the Examiner's indication that claims 16, 17, 18, and 20 are allowed.

Conclusion

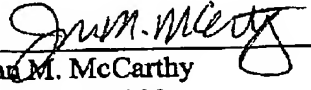
The amendment to claim 2 as well as the remarks in support of the rejected claims are believed to place all of pending claims 1-20 in condition for allowance, which action is respectfully requested.

S/N: 10/768,723

Atty Dkt No. GP-303333 / GM0420PUS

Respectfully submitted

**ADRIAN B. CHERNOFF et al.**

By   
Jean M. McCarthy  
Reg. No. 54,300

Date: 12-22-2005

**QUINN LAW GROUP, PLLC**  
39555 Orchard Hill Place, Suite 520  
Novi, MI 48375  
Phone: 248-380-9300  
Fax: 248-380-8968

*On behalf of:*

Kathryn A. Marra  
GENERAL MOTORS CORPORATION  
Legal Staff Mail Code 482-C23-B21  
P.O. Box 300  
Detroit, Michigan 48265-3000